

CHAPTER IV

OTHER ENVIRONMENTAL CONSIDERATIONS

IV OTHER ENVIRONMENTAL CONSIDERATIONS

IV.A. CUMULATIVE IMPACTS (40 CFR 1508.7, 1508.25)

IV.A.1. Introduction

A cumulative impact is defined by the CEQ regulations as follows:

The impact on the environment which results from the incremental impact of the action, when added to other past, present and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such actions. (40 CFR 1508.7)

The evaluation of cumulative impacts considers potential incremental impacts of the proposed allocation alternatives when added to other past, present, and reasonably foreseeable future actions.

Due to the number of assumptions that were developed in order to conduct the analyses associated with this draft EIS, the discussion of cumulative impacts in this chapter relates primarily to cumulative impacts that would be anticipated based upon past and present conditions and trends.

Cumulative impacts associated with actions that are reasonably expected to occur in the future are based upon the future as envisioned under the No Action Alternative.

A brief summary is provided, of past and present actions related to water use within central Arizona, to furnish some background information regarding the trends that have occurred in water supply demand and use. Then, the cumulative impacts resulting from the proposed allocation of CAP water and long-term contract execution, for each of the three water use sectors identified in the EIS are discussed.

IV.A.2 Past and Present Actions

By 1930, essentially all of the surface water supplies in the Gila River watershed had been developed and were being put to use. The major projects were the SRP, San Carlos Irrigation Project and Waddell Dam. Following development of the surface water supplies, expanding irrigation and domestic developments began using large quantities of groundwater that were available. Uses quickly expanded to far exceed naturally occurring recharge. Groundwater levels began to drop and it became clear that users in central Arizona were taking water at rates greater than supply.

Water development occurred in disregard of the extent of the federal reserved water rights for Indian Reservations that were assured by the U.S. Supreme Court in *Winters v United States* 1908. The same Court did not quantify those reserved rights until 1963 in *Arizona v California*. Three major actions were initiated in response to the imbalance of supply and demand in central Arizona and the uncertainty of the extent of Indian water rights. First, the CAP was authorized in 1968 to divert and convey Arizona's remaining unused entitlement of Colorado River water to the central part of the State. Second, a general stream adjudication was initiated with the objective of establishing the extent and priority of water rights, including Tribal reserved claims. And third, the State enacted the GMA. All three of these actions are interrelated and the success of each is somewhat dependent on the total success of the others.

The general stream adjudication is progressing, although it is a slow, expensive and cumbersome process. Many of the major issues before the courts in these proceedings can be resolved with the settlement of the Indian Tribes' reserved water right claims. Specific Tribes at issue are the GRIC, SC Apache Tribe, TON, Navajo Nation, and Hopi Tribe. Allocation and contracting of CAP water for these Tribes is an essential element of water rights settlement.

The GMA is a comprehensive set of laws and rules that control and manage the uses of groundwater in the State. Under the GMA, no new irrigation may be developed, and use by all non-irrigation users must meet strict water conservation requirements. New urban development must be supplied by a renewable water supply. CAP supply is, in effect, the only significant new renewable water available in central Arizona. The GMA has been implemented; however its full success is dependent on full utilization of CAP water.

The CAP is authorized to deliver water to Indian and non-Indian users. Indian supplies may be used for any beneficial use including new agriculture and, if authorized by Congress, for leasing to other non-Indian users such as cities. Non-Indian uses generally include agricultural and municipal. Use of CAP water to replace groundwater pumping is unique for a Reclamation project. For non-Indian users, CAP water cannot be used to bring new land into production, and groundwater pumping must be reduced by the amount of CAP water delivered. This is consistent and compatible with the GMA. CAP water for M&I use is for the purpose of meeting needs of expanding cities and towns. This provides a renewable supply which satisfies the GMA's requirement that new development not rely on nonrenewable groundwater.

The completion and successful implementation of the GMA, the settlement of Indian water rights claims and the allocation and contracting of CAP supplies would have the long-term effect of average water use achieving equilibrium with the long-term sustainable supply. This would be the case even with the rapid urban growth that is now occurring and is expected to continue into the future. Additionally, culmination of these programs would provide the Indian communities with water supplies in satisfaction of their unsatisfied claims and the opportunity to proceed with economic development programs that are dependent on water supplies.

The allocation and contracting of CAP supplies among the various use sectors in the CAP service area is an essential element for completion of a successful water management program. This EIS evaluates a series of alternative allocations that might be made to distribute this water supply to meet the project and program purposes.

Following is a brief discussion of the general cumulative impacts that can be expected to occur in each of the water use sectors affected by the proposed allocation alternatives.

IV.A.3 M&I Sector

The urban population in central Arizona is expanding rapidly. This growth is occurring on desert and agricultural land. As a result, there are many impacts to the human and natural environment. However, because of the relatively small magnitude of the M&I supplies being reallocated, the proposed allocations addressed in this EIS would not impact the rate or location of growth. The different allocation alternatives provide different amounts of water to municipal suppliers; however, the difference among all the alternatives, including the No Action Alternative, are not expected to impact growth in any area. The analysis indicates alternative water supply sources

would be available to adjust for the differences among alternatives. The difference among all the alternatives would only be different levels or timing of effort to secure alternative supplies. For example, under the Settlement Alternative, the M&I sector would have an additional 65,647 af of supply under contract, as well as water leased from the Indian communities and an additional 95,263 af that could be designated for M&I use in the future. This would satisfy the needs of the cities for a relatively long period of time. Nevertheless, eventually it is anticipated they would need to develop additional supplies; however, this need would occur beyond the 50-year study period.

The No Action Alternative and other action alternatives would provide lesser supplies to the cities. This would cause them to find alternative supplies earlier than under the Settlement Alternative. The impacts of finding alternative supplies, when added to other past, present and reasonably foreseeable activities, may include:

- ◆ Impacts to groundwater and land disturbance from construction and operation of recharge facilities;
- ◆ Potential reduction in riparian habitat along effluent-dominated streams due to increased reuse of effluent (e.g., to accrue recharge credits or to avoid increasingly stringent Section 402 discharge limitations);
- ◆ Expedited retirement of irrigated lands and transfer of water supplies for city use;
- ◆ Changes in water use practices and landscaping resulting from implementation of intensive water conservation programs;
- ◆ Economic impacts to M&I users due to increased cost of water to users; and
- ◆ Changes in water taste and quality due to changes in water supply.

IV.A.4 NIA Sector

The amount of non-Indian irrigated agriculture in central Arizona reached its maximum levels in the 1950s. With declining groundwater levels, increasing groundwater pumping costs and declining agricultural revenues, the number of irrigated acres has decreased substantially from these historic high levels. Some NIA districts located adjacent to expanding metropolitan areas have also experienced reduced irrigated acreage as a result of urbanization.

Commodity prices and the rate and extent of urban development will determine the future levels of agricultural activity within the NIA sector. If agricultural revenues are sufficient to sustain farming families or retain land ownership until land values rise due to development potential, agricultural activity will continue. If agricultural revenues are not sufficient to either provide sufficient income to farming families or retain the land base until it can be developed, the land will be fallowed. To the degree that commodity prices are low and agricultural profitability is more sensitive to the cost of water, the availability and cost of CAP water will determine the future levels of irrigation in districts using CAP supplies.

Under all alternatives, including the No Action Alternative, it is anticipated sufficient excess water would be available to the NIA sector at affordable prices, to satisfy projected irrigation needs at least until the year 2016. After that, the Ag Pool will diminish at varying rates among the action alternatives (see Appendix A). The impacts resulting from these reductions in CAP water availability, when added to other past, present and reasonably foreseeable activities, include the following:

- ◆ Additional groundwater use, resulting in groundwater level declines, water quality changes (generally to that of poorer quality), and subsidence above the area of groundwater decline;
- ◆ Increased costs to pump groundwater;
- ◆ Agricultural land fallowed with related environmental impacts such as increased dust and obnoxious weeds;
- ◆ Potential loss of land and/or an agricultural lifestyle for those farmers no longer able to maintain their family farms; and
- ◆ Potential change in clientele from NIA sector to Indian agricultural sector for agriculturally related businesses.

IV.A.5 Indian Sector

Under the proposed alternatives, five Indian communities or Tribes would be allocated varying amounts of CAP water. Depending upon the community or Tribe, it is anticipated this water would be used mainly for agricultural development, groundwater recharge, improving the dependability of potable water supplies, and/or generation of revenues from water leases. Under the Settlement Alternative, the water rights claims of the GRIC would be resolved. Under the Settlement Alternative and Non-Settlement Alternatives 2 and 3, the source of 28,200 afa of water suitable for agricultural use provided to TON by SAWRSA would be identified as CAP water. Under any of the non-settlement alternatives, water allocated to Indian Tribes would be made with the intent that these amounts would be credited against Tribal water rights based upon terms and conditions to be agreed upon with the Secretary.

The impacts from receiving and using CAP water that would be allocated and contracted to the Indian Tribes and communities, when added to other past, present and reasonably foreseeable future actions, include the following:

- ◆ Improved Tribal economy from revenue generated from water leases;
- ◆ Improved living standards due to provision of a reliable potable water source and potential reductions in unemployment;
- ◆ Increased self-sufficiency of and self-determination by Tribal communities;
- ◆ Return to agricultural way of life as desired by community members;

- ◆ Increased dust and air pollution generation;
- ◆ Potential increased exposure to agricultural chemicals;
- ◆ Substantial loss of native desert; and
- ◆ Potential loss of significant cultural resources.

Under several alternatives some portion of the CAP allocation to the Indian sector is comprised of NIA-priority water. As discussed briefly in Chapter II, NIA priority water is the lowest priority of CAP water and is reduced to zero prior to any reductions to Indian or M&I priority water during shortage. Beyond the 50-year study period beginning in 2055, Reclamation studies predict the probability of shortage would increase to approximately 50 to 55 percent and to continue at that level thereafter. Agricultural land developed using the NIA-priority water would either have to be fallowed during shortage or an alternative water supply, such as increased levels of groundwater pumping, would have to be developed.

IV.B. RELATIONSHIP BETWEEN SHORT-TERM USES AND LONG-TERM PRODUCTIVITY (NEPA SECTION 102(2)(C)(V) AND 40 CFR 1502.16)

IV.B.1. Introduction

This section discusses the long-term productivity that would result from the allocation of CAP water and execution of long-term service contracts, and the short-term uses of resources that would be required to realize the long-term productivity. Short-term use of man's environment refers to either the actual use of or impacts to resources (i.e., energy, manpower or monetary investment). Long-term productivity refers to the benefit that would be realized from the allocation of CAP water.

IV.B.2. Long-term Productivity and Short-term Uses of Resources

Short-term uses typically involve the "commitment" of certain resources typically associated with construction-related activities including habitat disturbance or disturbance to cultural resources, increased air emissions and fugitive dust from construction vehicles. Construction of delivery facilities would be required by some entities to take and use CAP water (see Appendix L). These short-term commitments of resources cannot be completely quantified at this time, so Reclamation has made a commitment to carry out a second level environmental review of delivery facilities (see Chapter V).

The most significant "commitment of resources" is the commitment of the water supply itself, which is the subject of the EIS. This is a long-term commitment of 50 years for CAP contracts and subcontracts, unless provided otherwise by Congress.

Long-term benefits that would be realized from the allocation of CAP water and execution of long-term contracts include the increase of water to Indian users which would contribute to increased agricultural production on Indian lands and provision of dependable potable water supplies. It is

expected that most of the newly allocated CAP water would be used to irrigate Indian agricultural lands.

Increased agricultural production (farming) on Indian lands can provide short-term productivity, while maintaining and enhancing the long-term productivity of land resources with environmental protections in place and the use of sound agricultural practices (PMIP PEIS 1997). Various federal and State regulations (including the CRBPA and the State of Arizona GMA) preclude the expansion of irrigated farmlands on non-Indian lands, increasing the value of agricultural production on Indian land as an important long-term benefit. Long-term benefits also include a final allocation of CAP water to M&I users that would contribute to certainty in planning for long-term water needs. To the extent the Settlement Alternative also resolves litigation with CAWCD and Indian water rights litigation with GRIC, such certainty is greatly enhanced

IV.C. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES (NEPA SECTION 102(2)(C)(V) AND 40 CFR 1502.16).

Irreversible commitments are decisions affecting renewable resources such as soils, wetlands, and wildlife habitat. Such decisions are considered irreversible because their implementation would affect a resource that has deteriorated to the point that renewal can occur only over a period of time or at great expense, or because the resource is removed. The term irreversible describes the loss of future options and applies to the effects of using nonrenewable resources or resources that are renewable only over a long period of time.

Irretrievable commitment of natural resources means loss of production or use of resources as a result of a decision. It represents opportunities foregone for the period of time that a resource cannot be used. Irretrievable refers to the permanent loss of a resource including production, harvest or use of natural resources. Production or loss of agricultural lands can be irretrievable, while the action itself may not be irreversible.

As noted earlier, the level of urbanization is identical for all alternatives, including the No Action Alternative. Therefore, loss of open space and wildlife habitat and damage to cultural resources due to M&I urbanization would not be directly related to decisions made regarding allocation of CAP water. However, loss of production or loss of agricultural lands within the NIA sector that may result from reductions in the availability of reasonably priced CAP water would be irretrievable.

Increased farming activities on Indian lands would require the irreversible and irretrievable commitment of fossil fuels, chemicals, manpower and the commitment of CAP water being used for irrigation when those lands are under production. It is anticipated that the number of acres of Indian lands going into production would increase as CAP water is used to irrigate agricultural lands. Between 8,000 and 50,000 acres, depending upon the alternative, would be developed for agriculture on Indian lands using CAP water allocated and contracted to the Tribes.

IV.D. INDIAN TRUST ASSETS

Indian Trust Assets (ITAs) are legal interests in property held in trust by the United States for Indian Tribes or individuals. Examples of things that may be trust assets are lands, minerals,

hunting and fishing rights, and water rights. In addition, Native American Grave Protection and Repatriation Act (NAGPRA) cultural items and other cultural property may be considered ITAs. The United States, with the Secretary as trustee, holds many assets in trust for Indian Tribes or Indian individuals. The ITA policy states that activities should be carried out to protect ITAs and avoid adverse impacts when possible. When adverse impacts cannot be avoided, appropriate mitigation or compensation will be provided.

In general, ITAs that could be adversely impacted by allocating CAP water to any of the five Tribes and entering into long-term contracts would include lands that would need to be disturbed during construction of delivery facilities, any underlying cultural properties, and minor amounts of water that would need to be used during construction and any associated land subjugation. If lands that are to be developed for agriculture are currently used for other purposes, such as mining, hunting or grazing, these lands would no longer be available for those uses. On the other hand, Indian lands currently unused within the Reservations could be developed for economic purposes, thus enhancing their value and assisting the Tribes in their movement toward economic self-sufficiency. Most importantly, as illustrated by the purpose and need statement, CAP water would be allocated to facilitate the resolution of Indian water rights claims. This goal would be most effectively realized under the Settlement Alternative, which would actually result in a final GRIC settlement, as well as final implementation of the SAWRSA. Non-Settlement Alternatives 2 and 3, however, would also allocate a significant amount of CAP water to the Tribes. It is anticipated this water would ultimately be part of water rights settlements for those Tribes. In the meantime, the Tribes would have the opportunity to use that water to meet Reservation needs.

The exact nature and magnitude of impacts to ITAs cannot be described in any greater detail unless and until more specific plans are identified for the delivery and use of CAP water that would be allocated and contracted to each of the Tribes. Planning for these CAP-related developments would most likely be carried out by the Tribes or their consultants, with assistance and/or oversight from Reclamation. Reclamation would consult with the Tribes during specific project planning and construction, to protect ITAs as much as practicable, and to identify mitigation or compensation when impacts cannot be avoided.

Some concern has been expressed that the Settlement Alternative, which includes resolution of the *CAWCD v United States* litigation, would institutionalize central Arizona water users' reliance on unused water rights belonging to mainstem Colorado River Tribes. This concern stems from the fact that the Settlement Alternative assumes the continuation of CAWCD's excess water program in which CAWCD delivers unused CAP and other unused Colorado River water to central Arizona water users, including non-Indian agricultural districts and the AWBA. Although the basis for this concern is acknowledged, that reliance is not the result of the settlement itself. In addition, CAP's right to divert water is expressly subordinate to the senior rights of the mainstem Tribes ("prior, perfected rights"), a point made clear in the *CAWCD v United States* stipulation.

IV.E. ENVIRONMENTAL JUSTICE

On February 11, 1994, the President issued Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.” This order established the requirements to address Environmental Justice concerns within the context of agency operations. As part of the NEPA process, agencies are required to identify and address disproportionately high and adverse human health or environmental justice effects on minority or low-income communities. Federal agencies are directed to ensure that federal programs or activities do not result, either directly or indirectly, in discrimination on the basis of race, color, or national origin. The Executive Order on Environmental Justice also requires that “the responsibilities set forth shall apply equally to Native American programs.” Therefore, when minority and low-income populations are discussed, Indian populations may also be included. The three goals of the order are:

- ◆ To focus federal agency attention on the environment and human health conditions in minority communities and low-income communities;
- ◆ To promote nondiscrimination in federal programs that substantially affect human health and the environment; and
- ◆ To provide minority communities and low-income communities greater access to information on and opportunities for public participation in matters relating to human health and the environment.

Federal agencies are required to provide opportunities for input in the NEPA process by affected communities and to evaluate significant and adverse environmental effects of proposed federal actions on minority and low-income communities during preparation of federal environmental documents. If a proposed federal action will not result in significant adverse impacts on minority and low-income populations, the environmental document must describe how the order was addressed during the NEPA process.

Environmental Justice includes any adverse effects on minority and low income populations in the analysis area and would include Indian populations as well. Each of the Indian Tribes was contacted during the planning and scoping process and asked to provide input into both the proposed CAP allocation and the draft EIS. As described in Chapter I, three public scoping meetings were held to facilitate greater participation by the potentially affected local community. The locations of the public meetings were selected to include both a rural and an urban audience as well as to be conveniently located near populations that were expected to have the greatest public interest.

IV.E.1. M&I Sector

There are 21 municipal and private water providers that would be affected by the proposed allocation. These M&I entities are located in Maricopa, Pinal, and Pima Counties. CAP water would be allocated to each of the 21 providers under the Settlement Alternative and Non-Settlement Alternatives 1 and 3B. No CAP water would be provided to these entities under the other

alternatives. A detailed summary of the CAP allocations proposed for M&I water providers under the alternatives is provided in Appendix L.

All of the M&I entities potentially receiving a CAP allocation are estimated to be able to meet future water consumption demands, with or without additional CAP water. No adverse effects, as defined by Executive Order 12898, are anticipated as a result of allocations of CAP water to M&I entities as proposed under the alternatives.

IV.E.2. NIA Sector

Nine irrigation districts in Maricopa and Pinal Counties would be affected by the proposed allocation. These districts originally entered into contracts with the United States and CAWCD for a percentage of CAP water remaining after water was delivered in accordance with subcontracts to the M&I and Indian sectors. As mandated by the GMA, CAP water supplied for NIA must be used in lieu of equal amounts of groundwater and cannot be used to increase acreage under production.

Six of the nine irrigation districts would receive an additional CAP water allocation through subcontracts with the United States and CAWCD only under Non-Settlement Alternative 3A. This water would be delivered on an as-available basis. The other three districts were not identified as receiving an allocation in the 1992 reallocation decision. A detailed summary of the CAP allocations proposed for each NIA district under the alternatives is provided in Appendix L.

Agricultural lands that are currently being irrigated may go out of production in the long term. Changes in land use and loss of farm acres would be influenced by water availability, economics, and urbanization. Loss of access to CAP water may result in some farmland becoming fallow.

Farm owners within the affected service areas collectively do not constitute a minority or low-income population. Conversely, the general population of farm workers is primarily composed of low-income and minority groups. Among this population, wages are low and work is seasonal. Long-term reduction of farm acres attributable to loss of access to CAP water would displace a portion of this labor force. These losses would be partially offset by additional employment opportunities created by urban expansion and by expansion of agricultural development on Indian Reservations.

IV.E.3. Indian Sector

Data compiled by the U.S. Census Bureau and other sources consistently demonstrate lower incomes and higher unemployment rates for Indians relative to the general population. Significant water resource issues on the Reservations have limited economic growth and adversely affected the quality of life. Shortages of safe drinking water, insufficient supplies of water to satisfy agricultural and industrial development, and lack of adequate systems to distribute water persist on many Reservations.

Environmental Justice issues were considered for the Indian Tribes potentially affected by the allocation of CAP water. Five Tribes are examined in this analysis: GRIC, Hopi Tribe, Navajo Nation, SC Apache Tribe, and TON. A detailed summary of the CAP allocations proposed for each Tribe under the alternatives is provided in Appendix L.

Under the Settlement and Non-Settlement Alternatives, GRIC would receive CAP allocations ranging from 53,400 afa to 188,000 afa. The primary use of this water would be for irrigated agriculture through the PMIP. The Settlement Alternative would also provide water for lease or exchange with several municipalities and mining interests.

The Hopi Tribe and Navajo Nation currently do not have CAP allocations. Under Non-Settlement Alternatives 2 and 3, the Navajo/Hopi would receive a combined allocation of CAP water totaling 13,500 afa, which would likely be used for domestic and industrial consumption. Construction of facilities would be needed to convey this allocation directly from the Colorado River. Specific construction projects to use a CAP allocation are described at a programmatic level in Appendix L and will require additional environmental clearances prior to delivery of CAP water.

The SC Apache Tribe would receive, under Non-Settlement Alternative 2 and Non-Settlement Alternative 3, CAP allocations of 23,447 afa and 40,000 afa, respectively. No additional CAP water would be allocated under the other alternatives. It is assumed the SC Apache Tribe would have to enter into an exchange agreement with a downstream party that has rights to the Gila River and access to CAP water. Specific construction projects to use a CAP allocation are described at a programmatic level in Appendix L and will require additional environmental clearances prior to delivery of CAP water. The primary application of a CAP allocation is anticipated to be for agricultural irrigation, although some industrial use may occur.

The TON would receive a CAP allocation of 28,200 afa under the Settlement Alternative and Non-Settlement Alternatives 2 and 3. No additional CAP water would be allocated under the No Action Alternative and Non-Settlement Alternative 1. Potential uses of CAP water received as part of the proposed allocation include expansion of agricultural development and groundwater recharge in the San Xavier and Schuk Toak districts. Any additional water provided under the alternatives would be conveyed through distribution facilities presently under construction or recently completed.

In general, greater availability of CAP water supplies is expected to lead to more land under cultivation, increased agricultural production, and in some instances water for domestic and industrial use. Additional Indian agricultural or industrial activity resulting from additional CAP allocations would increase incomes and employment for a population that experiences high poverty and unemployment rates. The long-term effect would be to stimulate economic growth and reduce poverty. Because the alternatives would not reduce available water supplies or introduce disproportionately high and adverse human health and environmental effects on the Reservation, there would be no adverse effect as defined by this Executive Order.

IV.F. COMPLIANCE WITH ENVIRONMENTAL STATUTES AND POLICIES

IV.F.1. Federal Statutes and Policies

As part of Reclamation's compliance with NEPA, this draft EIS is intended to provide decision-makers and the public with information regarding the environmental effects associated with the allocation of CAP water and execution contracts. In addition to the requirements of NEPA, there are a number of other environmental laws, rules and regulations that may be applicable to actions taken in the future before entities may take and use allocated and contracted CAP water. As

previously described in Chapter III, many entities have only conceptual plans for taking and using CAP water. For these entities, construction-related activities are discussed at a “programmatic” level. Consistent with longstanding Reclamation practice and previous CAP contracting actions, Reclamation would require that specific on-the-ground environmental clearances be completed prior to water delivery.

Compliance with environmental statutes that are applicable to the proposed allocation is discussed below.

- ◆ **Clean Water Act of 1977, as amended.** Section 404 of this Act identifies conditions under which a permit is required for construction projects that result in the discharge of fill or dredged material into waters of the United States. Neither an individual 404 permit nor a Nationwide Permit would be needed for the proposed allocation and contract execution. However, if proposed construction of any delivery and/or treatment facilities would result in discharge of dredged or fill material, the municipality or water company would be required to comply with Section 404. Similarly, if development of agricultural land and/or construction of irrigation delivery or recharge facilities would alter washes or stream channels, a Section 404 permit, as appropriate, would need to be acquired. Section 402 of this Act identifies conditions under which a permit is required for the discharge of pollutants into waters of the United States. No permits would be required as there would be no pollutants discharged as a result of the proposed allocations. However, if pollutants would be discharged to waters of the U.S. as a result of constructing facilities to take and use the CAP water, the entity would be required to comply with section 402.
- ◆ **Safe Drinking Water Act of 1974, as amended.** Section 1424 of this Act regulates underground injection into an aquifer, which is the sole or principal drinking water source for an area. No underground injection is proposed as part of the proposed allocation and contract execution. Should an entity, whose sole or principal drinking water source is currently groundwater (e.g., Tucson area, Navajo Nation or Hopi Tribe), choose to recharge CAP water via underground injection, that entity would need to comply with this Act.
- ◆ **Executive Order 11988, Floodplain Management, May 24, 1977.** Executive Order 11988 requires avoiding or minimizing harm associated with the occupancy or modification of a floodplain. The proposed allocation and contract execution would not cause any harm to the floodplain. Any irrigation and/or recharge project developed to utilize CAP water would need to be sited and operated in such a manner that it would not result in adverse modification to a floodplain or cause harm to any adjacent or downstream land owner.
- ◆ **Executive Order 11990, Protection of Wetlands, May 24, 1977.** Executive Order 11990 provides for the protection of wetlands through avoidance or minimization of adverse impacts. The proposed allocation and contract execution would not impact any wetlands. Any future use of CAP water proposed to be allocated and contracted would need to comply with Section 404 of the Clean Water Act (CWA), as well as this Executive Order, which would ensure that adverse impacts to wetlands are avoided, or minimized and mitigated.
- ◆ **Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 11, 1994.** This Order directs federal

agencies to identify and address, as appropriate, disproportionately high and adverse human health and environmental effects of their programs, policies and activities on minority and low-income populations. There were three public scoping meetings held for the project. These meetings were held in the communities that were the three major population centers of the CAP three-County service area, to facilitate greater participation by the potentially affected local communities. Under the action alternatives, up to five Indian communities would receive additional water supplies. The long-term effect would be to stimulate economic growth, improve living conditions, and reduce poverty. Because the alternatives would not reduce available water supplies or introduce disproportionately high and adverse human health and environmental effects on the Reservation, there would be no adverse effect as defined by this Executive Order.

- ◆ **Executive Order 13007, Indian Sacred Sites, 1996.** Executive Order 13007 (May 24, 1996) requires that all Executive Branch agencies that have responsibility for the management of Federal lands will, where practicable, permitted by law, and not clearly inconsistent with essential agency functions, provide access to and ceremonial use of Indian sacred sites by Indian religious practitioners and will avoid adversely affecting the integrity of such sacred sites. The order also requires that Federal agencies, when possible, maintain the confidentiality of sacred sites. Reclamation will comply with this Executive Order where applicable to the reallocation of CAP water and construction of CAP delivery facilities.
- ◆ **Wild and Scenic Rivers Act of 1968.** This Act requires consideration of wild and scenic rivers in planning water resources projects. Developing water resources projects is prohibited on any river designated for study as a potential component of the national wild and scenic river system. There are no such rivers or candidates in the area that would be affected by the proposed allocation.
- ◆ **Fish and Wildlife Coordination Act of 1934, as amended (FWCA).** This Act requires coordination with federal and State wildlife agencies (USFWS and Arizona Game and Fish Department [AGFD]) for the purpose of mitigating project-caused losses to wildlife resources. Reclamation met with USFWS to discuss FWCA on December 9, 1999. It was agreed that Reclamation would not request a FWCA report be prepared. The scoping report and draft EIS are being provided to USFWS for review, and Reclamation's consideration of USFWS's comments on the draft EIS will satisfy the requirements of the FWCA.
- ◆ **Endangered Species Act of 1973, as amended (ESA).** Section 7 of the Act requires federal agencies to consult with the USFWS to ensure that undertaking, funding, permitting or authorizing an action is not likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat includes: 1) areas within the geographic area occupied by a species at the time it is listed on which are found those physical or biological features essential to the conservation of the species and that may require special management consideration or protection; and 2) those specific areas outside the geographic area occupied by a species at the time it is listed essential to the conservation of the species. Designation of critical habitat only applies to federal projects or private action with a federal nexus. Reclamation has determined this reallocation of CAP water would have no effect on T&E species. For construction projects that are required in order for entities to take and use their CAP water, and for land disturbing activities on Indian

lands that involve Federal funds or federally managed lands, follow-on compliance with this Act would be required once final plans are known and implementation is proposed.

- ◆ **National Historic Preservation Act of 1966, as amended (NHPA).** Federally funded undertakings that have the potential to affect historic properties are subject to Section 106 of the NHPA; however, other jurisdictions, including State, county, and municipal agencies, often have their own regulations pertaining to cultural resources and historic preservation. Under this Act, federal agencies are responsible for the identification, management, and nomination to the National Register of Historic Places (NRHP) of cultural resources that would be affected by federal actions. Consultation with the Advisory Council on Historic Preservation and the SHPO is required when a federal action may affect cultural resources on, or eligible for inclusion on, the National Register. This draft EIS provides an overview of the types of cultural resources present in the areas for each affected M&I entity, NIA user and Indian Tribe. There is no Section 106 consultation required for the proposed allocation, although a copy of the draft EIS is being provided to the SHPO and interested Tribes.
- ◆ **Clean Air Act of 1963, as amended.** This Act requires that any federal entity engaged in an activity that may result in the discharge of air pollutants must comply with all applicable air pollution control laws and regulations (federal, State or local). It also directs the attainment and maintenance of NAAQS for six different criteria pollutants, including CO, O₃, particulate matter, sulfur oxides, oxides of nitrogen, and lead. Short-term emissions associated with construction of M&I water conveyance structures and related facilities would occur under the Settlement Alternative, and Non-Settlement Alternatives 1 and 3B. These emissions would be localized; dust abatement measures would be required to be implemented during construction. Land subjugation and agricultural activities would generate air pollution, particularly particulate matter, under all alternatives. The increases that would occur in agricultural production on Indian lands, and the fallowing of lands within NIA districts would contribute additional impacts to air quality, especially in Pinal County during the latter portion of the study period. Follow-on NEPA documentation conducted for Indian development projects would evaluate potential air quality impacts using conditions, air quality standards and any SIPs that exist and are applicable at those future points in time. NEPA documentation would include mitigation measures that would require projects involving federal funds or requiring federal approval to comply with applicable federal, State and local air pollution and dust control laws, regulations and ordinances, as is consistent with past and current Reclamation practice.
- ◆ **General Conformity Rule, 40 CFR Part 51, Subpart W.** This Rule ensures that federal projects or projects receiving federal funding conform to applicable SIPs, so that they do not interfere with strategies employed to attain the NAAQS. The rule applies to federal projects in areas designated as non-attainment areas for any of the six criteria pollutants for which the EPA has established NAAQS and in some areas designated as maintenance areas. The rule applies to all federal projects except: 1) programs specifically included in a transportation plan or program that is found to conform under the federal transportation conformity rule; 2) projects with associated emissions below specified *de minimis* threshold levels; and 3) certain other projects that are exempt or presumed to conform. Estimated net emissions resulting from development of agricultural lands on Indian lands and fallowing of agricultural lands on NIA district lands were calculated for each alternative. Most changes would be relatively small in magnitude which do not exceed significance thresholds

related to conformity or new source review standards. The only exception occurs in Pinal County where calculations indicate emission thresholds could be substantially exceeded during the latter part of the 50-year study period (year 2043 and beyond). It is unknown what ambient conditions would exist at that time, standards that would be in place, or SIPs that would be in effect. Follow-on NEPA commitments, as described above for the Clean Air Act, would also apply to General Conformity Rule requirements.

IV.F.2. Other Environmental Statutes

In addition to compliance with the federal statutes identified in the section above, there are other State agencies that may have additional permit or approval authority and other State regulatory requirements that are applicable to the project. Table V-1 provides a summary of these applicable permits, approval and regulatory requirements. Table V-2 provides a list of contracts, legislation and agreements with which the CAP allocation and execution of long-term contracts must comply.

Table IV-1 CAP Allocation Draft EIS Chapters Applicable State Permits, Approvals and Regulatory Requirements		
Agency	Applicable LOR	Action Required or Purpose
State of Arizona Groundwater Management Act	The Groundwater Management Code	<p>The State of Arizona enacted the Code in 1980. With the Code, Arizona made a commitment to the long-term management and conservation of its limited groundwater supplies. The goals of the Code are to eliminate severe groundwater overdraft in the State's most populated areas where groundwater supplies have been rapidly diminishing and to provide the means for allocating Arizona's limited groundwater resources to most effectively meet the State's changing water needs. The Code established four AMAs in specific groundwater basins that have experienced extensive water level declines, and established goals for each AMA to control water development and use. The Phoenix, Pinal and Tucson AMAs occupy most of the area proposed for the CAP allocation. The goal established for the Phoenix and Tucson AMA's is to achieve safe-yield by 2025 by increasing the use of renewable water supplies and decreasing groundwater withdrawals in conjunction with efficient water use (ADWR 1999). The goal for the Pinal AMA, where a predominately agricultural economy exists, is to allow the development of non-irrigation water uses and extend the life of the agricultural community for as long as feasible while preserving water supplies for future non-irrigation uses (ADWR 1999).</p> <p>Although CAP water deliveries will facilitate meeting the goals of the Code, this is not a specific purpose of the allocations. Instead the use of CAP allocations to achieve groundwater management goals is left to the State's discretion in their recommendation of allocations to the M&I and NIA sectors. Providing CAP water is inherent in the State's plan to achieve safe yield for the Phoenix and Tucson AMAs.</p>
Arizona Legislature	Assured Water Supply Rules	The Groundwater Management Code prohibits the sale or lease of newly subdivided land in an AMA absent the demonstration of an AWS. The Assured Water Supply Program (AWS Program) was instituted as part of the GMA in 1980. The program has been actively enforced since 1995 with the adoption of the AWS rules. The AWS rules require new development within an AMA to demonstrate that sufficient water supplies of adequate quantity and quality are available to meet proposed uses for 100 years. Municipal providers seeking a designation of AWS for a service area must demonstrate there are adequate water supplies available to the provider to meet current and future demands of the customers

Table IV-1 CAP Allocation Draft EIS Chapters Applicable State Permits, Approvals and Regulatory Requirements		
Agency	Applicable LOR	Action Required or Purpose
		currently on the system and the demands of customers it has committed to serve, for 100 years. The water supplies used to demonstrate an AWS may include surface water, effluent, imported groundwater, credits from extinguishment of groundwater rights, a quantity of allowable groundwater use specified by the rules, or water stored pursuant to an underground storage permit. Water received as part of the CAP allocation could be used to demonstrate an AWS.
Central Arizona Groundwater Replenishment District	Replenishment District Laws	CAGRD is a tax-exempt public improvement district authorized by Arizona's legislation to acquire water supplies to replenish aquifers depleted by district members. The CAGRD is an organizational unit of the CAWCD and is overseen by the CAWCD board. The CAGRD was created to provide entities with physically available groundwater
Arizona Water Bank Authority	Authority Laws	AWBA was created in 1996, to ensure that Arizona's CAP allocation to the M&I sector will be protected in times of shortage: a) support Indian water rights settlements and fully use Arizona's CAP allocation; b) protect M&I users of Colorado River water from shortages. AWBA used several funding sources to buy excess CAP water and recharge it for future benefit of users both inside and outside of the CAP area.
Arizona Department of Environmental Quality		ADEQ develops and enforces water quality regulations. The ADEQ and the Water Quality Assurance Revolving Fund (WQARF) participate jointly in specific activities related to the protection of groundwater quality and remediation.
State of Arizona	Irrigation and Water Conservation District Statutes	The NIA users of CAP water are organized into irrigation districts under the authority of Arizona State Law. They are organized for the purpose of delivering water for irrigation and other uses within their district boundaries.
State of Arizona	Underground Storage and Recovery Statutes (A.R.S. 45-801-et seq.)	In 1994, the State Legislature consolidated the legal framework for storing surplus water underground for later recovery into the Underground Water Storage, Savings, and Replenishment Act (UWS). This framework requires the issuance of permits by ADWR for both storage and recovery facilities. Each permit establishes a storage account that keeps track of the amount of stored water and the amount of water which has been recovered or pledged for an AWS. Surface that cannot be reasonably used directly may be stored. Since CAP water was intended to replace groundwater pumping and lessen Arizona's groundwater overdraft, only CAP water that cannot be reasonably used directly can be stored.
State of Arizona	Indirect Groundwater Storage and Recovery	In 1990, the State Legislature expanded the previously mentioned underground storage statutes by allowing for the

Table IV-1 CAP Allocation Draft EIS Chapters Applicable State Permits, Approvals and Regulatory Requirements		
Agency	Applicable LOR	Action Required or Purpose
	Statutes	indirect storage of surplus water. The program was included in the 1994 UWS Act. Indirect groundwater storage and recovery projects allow for water to be provided to a person who would otherwise have pumped and used groundwater. If the stored water is CAP water, water must first be offered to all CAP users for direct use before being indirectly stored under these Arizona statutes.
State of Arizona	Annual Storage and Recovery Projects	Provisions for annual storage and recovery projects were created by legislation in 1992 and included in UWS Act of 1994.. While similar in nature to the underground and recovery projects, these are not intended for long-term carryover supply. These projects are intended to allow an alternative means for direct use of water. Instead of treating CAP water and piping it to customers, annual storage projects allow the storage of CAP water underground and recovery through wells and use on an annual basis.
Arizona Game and Fish Department (AGFD)		The AGFD has issued a list of Wildlife of Special Concern in Arizona (WSCA). This species list is used as a supplement to the federal list of T&E species; however it has no special legal status or regulatory authority. Those species described and listed in WSCA are species for which AGFD has special management concerns.
Arizona Department of Agriculture	Arizona Native Plant Laws, Arizona Revised Statutes, Chapter 7	This legislation ensures the protection of selected native plants. These plants cannot be removed from any lands without the permission of the landowner and a permit. Landowners have the right to destroy or remove plants growing on their land, but prior to destruction of any protected native plants, landowners are required to notify the ADWR.

Table IV-2 CAP Allocation Draft EIS Applicable Contracts, Legislation, and Agreements	
Contract, Legislation or Agreement	Purpose
FEDERAL	
Boulder Canyon Project Act of 1928 - Public Law 70-642	In part, authorized construction of Hoover Dam and provides the Secretary authority to execute contracts for water made available under the Boulder Canyon Project. Pursuant to this Act, water delivered would also have to be used within the Lower Colorado River Basin.
Reclamation Project Act of 1939, as amended – Public Law 53 Stat. 1193	This Act authorizes the Secretary to enter into contracts before furnishing water for irrigation uses provided that the agreements include certain requirements and restrictions. The Act also provides the general statutory authority for Reclamation to enter into repayment contracts with ID's receiving a CAP allocation for the repayment of their distribution system construction costs. The Act also allows the Secretary to enter into repayment contracts for municipal and miscellaneous water.
Colorado River Basin Project Act of 1968 - Public Law 90-537	In relevant parts, authorized the planning, construction, and repayment of costs of the CAP and provides the Secretary authority to execute contracts for water made available under the project. The Act also prohibits the use of CAP water for irrigation on NIA lands without a history of irrigation between 1958 and 1968, and requires that contracts for use of CAP water must contain provisions to control the expansion of groundwater use.
INDIAN WATER RIGHTS SETTLEMENTS	
SAWRSA of 1982 - Public Law 97-293	Authorized the settlement of water rights claims of the TON for the San Xavier and Schuk Toak Districts. The settlement provided 37,800 afa of CAP water to the two districts. In addition, the settlement authorized delivery of 28,200 afa of additional water supplies, suitable for agricultural use: 23,000 afa to San Xavier District and 5,200 af to Schuk Toak District; however, the source of this additional 28,200 af was not identified.
Ak-Chin Indian Community Water Rights Settlement Act of 1984 – Public Law 98-530	Provided for the settlement of water rights claims of the Ak-Chin Indian Community. The Community received 50,000 afa of Colorado River water from the YMD to be delivered by CAP in addition to its CAP allocation. The Community receives a supply of 75,000 afa, and an additional 10,000 af when supplies are available.
SRPMIC Water Rights Settlement Act of 1988 – Public Law 100-512	Authorized settlement of SRPMIC water rights claims. The settlement provided 5,000 afa of additional CAP supply and 22,000 afa of Colorado River water formerly allocated to WMIDD, to be delivered by CAP. The Act also addressed reallocation of uncontracted NIA water and provided for RWCD

	to relinquish its NIA allocation.
FMIC Water Rights Settlement Act of 1990 – Public Law 101-628	Authorized settlement of water rights claims of the FMIC. The Community received 13,933 afa of CAP water. This water was acquired as a result of HVID's relinquishment of its NIA allocation. The remaining HVID water (19,318 afa) is reserved for federal use in the settlement of Indian water rights claims to the Salt and Verde River watersheds.
SC Apache Tribe Water Rights Settlement Act of 1992 (as amended) - Public Law 102-575	Authorized settlement of water rights claims to the Salt River watershed by the SC Apache Tribe. The Tribe received 33,300 afa of CAP water formerly contracted to the Ak-Chin Indian Community. In addition, it received 3,480 afa of M&I water previously allocated to the Town of Globe, and 14,665 afa previously allocated to PD, pending implementation of the SC Apache Tribe Water Rights Settlement Agreement.